

**REMARKS**

Reconsideration of the present application is respectfully requested in view of the above amendments to the claims and the following remarks. Claims 1-26 are currently pending in this application, of which claims 1, 15, 20, and 24 are independent. In the Office Action dated May 26, 2005, claims 24-26 were allowed, claims 4 and 15 were objected to for formality reasons, claims 1, 10-15, 17-20, 22, and 23 were rejected under 35 U.S.C. § 103(a), and claims 2-9, 16, and 21 were objected to as being dependent upon a rejected base claim, but were otherwise indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant would like to thank the Examiner for allowing claims 24-26 and for indicating claims 2-9, 16, and 21 as containing allowable subject matter. Applicant hereby expressly reserves the right to rewrite, at a later time, claims 2-9, 16, and 21 in independent form. The Examiner's rejections of claims 1, 10-15, 17-20, 22, and 23 are hereby addressed in turn.

**Objections**

Applicant submits that claims 4 and 15 have been amended to address the formality objections and are now in proper claim format. Additionally, claim 14 has been amended to address a typographic error.

**Rejections Under 35 U.S.C. § 103(a)**

In the Office Action of May 26, 2005, the Examiner rejected claims 1, 10-15, 17-20, 22, and 23 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent

No. 6,256,740 ("*Muller*") in view of U.S. Patent No. 6,826,568 ("*Bernstein*"). The Examiner's rejection is respectfully traversed.

Applicant's invention, as defined by claim 1, is directed to maintaining a local store of services in each of a plurality of compute nodes in a network, where the local store of services includes at least a service name, a service functionality, and statistics defining a historical performance of the service on each computer node. Upon receiving a request for a service from a client system, a list of compute nodes matching the service request is compiled, where the list includes service names ranked according to the service functionality and the statistics for each compute node.

In rejecting claim 1, the Examiner asserted that *Muller* shows some of the features of claim 1. More specifically, the Examiner asserted that *Muller* discloses a plurality of compute nodes in a network, where the compute nodes maintain a local store of services. The Examiner asserted col. 17, lines 21-37 of *Muller* shows that the local store of services on each compute node includes at least a service name. The Examiner further referred to col. 3, lines 34-42 and col. 4, lines 8-17 of *Muller* asserting it shows creating a list correspondence in each compute node and indicating the performance of the service for each node in response to receiving a request for a service from a client system. Office Action, page 3.

Applicant submits that, contrary to the Examiner's assertions, *Muller* does not show or suggest the required features defined in claim 1. Rather, *Muller*, in its relevant sections, refers to separate and distinct compute resources 102 and storage resources 104, where compute resources 102 consists one or more compute nodes 200 and where storage resources 104 includes one or more I/O nodes 212/214. The

separate storage resource 104 is operatively coupled to the compute resource 102 via one or more interconnecting fabrics 106 and communication paths 108, so that “storage is no longer bound to a single set of nodes ... and any node can communicate with all of the storage.” Col. 4, lines 11-22. Referring to the sections specifically pointed to by the Examiner, *Muller* mentions that all data associated with a volume set ID, VSI 602, are stored on I/O node 212, which, as discussed above, is located in storage resource 104 that is separate and distinct from compute node 200. Col. 17, lines 18-22. Whenever a compute node 200 comes online, the I/O node 212 exports to computer node 200, names of those VSIs that the compute node 200 has access right to in storage resource 104, so that compute node 200 may have the OS specific data required to gain access to storage objects in storage resource 104. Col. 17, lines 38-46.

Accordingly, Applicant submits that at least because *Muller's* compute nodes 200 are separate from *Muller's* storage resource 104, *Muller* fails to show or suggest maintaining a local store of services in each of a plurality of compute nodes in a network, where the local store of services includes at least a service name, a service functionality, and statistics defining a historical performance of the service on each computer node, as defined in claim 1. Indeed, *Muller* teaches away from such local storage as it emphasizes that “storage is no longer needed to bound to a single set of nodes.” Col. 4, lines 11-22.

Applicant also submits that, *Muller*, as described above, merely mentions that a computer node 200 receives, upon coming online, a list of VSI names of those objects that the computer node 200 has access right to in storage resource 104. This function of *Muller*, contrary to the Examiner's assertion, is completely different from the claimed

feature of compiling a list of compute nodes matching a service request upon receiving the request from a client system as defined in claim 1.

The Examiner concedes that *Muller* fails to show or suggest that the local store of services includes a service functionality and statistics defining a historical performance of the service on each computer node. The Examiner also concedes that *Muller* is silent on compiling a list of compute nodes matching a service request upon receiving the request from a client system, where the list includes service names ranked according to the service functionality and the statistics for each computer node. However, the Examiner asserts that *Bernstein* discloses model matching in network distribution, which utilizes functionality provided by a protocol layer to identify the communication between client and server. According to the Examiner, a compiler of *Bernstein* compiles a list of compute nodes matching the service request and schema information using data statistics, where the list includes service names ranked according to the service functionality and statistics for each compute node. Based on these assertions, the Examiner concluded that it would have be obvious to one of ordinary skill in the art to use *Bernstein* to modify *Muller* in order to “improve the accuracy in performing corresponding information.” Office Action, page 3.

Applicant submits that, contrary to the Examiner’s assertions, *Bernstein* completely fails to show or suggest any feature of claim 1. *Bernstein*, in its relevant sections, refers to model or schema matching, where model or schema is specifically defined as “a complex structure that describes a design artifact,” consisting of “a set of related elements such as tables, columns, classes, XML elements or attributes.” Col. 2, lines 7-22. *Bernstein* used a purchase order as an example of a schema. In its limited

description of schemas matching, *Bernstein* completely fails to contemplate the claimed feature of maintaining a local store of services in each of a plurality of compute nodes in a network, where the local store of service includes at least a service name, a service functionality, and statistics defining a historical performance of the service on each computer node. Moreover, *Bernstein*, at least in defining its schema as a description of design artifact and defining its matching as between two schemas, also fails to disclose or suggest the claim feature of receiving a request for a service from a client system, and compiling a list of compute nodes matching the service request, where the list includes service names ranked according to the service functionality and the statistics for each computer node.

The Examiner specifically referred to col. 3, lines 3-7 of *Bernstein* as support in the rejection of claim 1. This portion of *Bernstein* merely mentions as background that instance-based matchers may use metadata and statistics collected from data instances to annotate the schema. Applicant submits that there is absolutely no explanation of what type of statistics are collected from data instances or how these statistics are used in the matching process. Furthermore, Applicant submits that *Bernstein* explicitly states that “[t]he invention is schema-based and not instance-based and assumes some hierarchy to the schemas being matched.” Col. 7, lines 12 and 13. Thus, Applicant submits that *Bernstein* expressly teaches away from using statistics as an element in its schema matching. Accordingly, *Bernstein* also fails to show or suggest any claim element as recited in claim 1.

In view of the foregoing, Applicant submits that at least because *Muller* and *Bernstein*, individually or in combination, fail to show or suggest the invention as defined

in claim 1, claim 1 is novel and patentable over the combination of *Muller* and *Bernstein* under 35 U.S.C. § 103(a). Claims 2-14 depend from claim 1 and are, therefore, also novel and patentable at least for being dependent upon allowable base claim 1.

Claims 15 and 20, each includes novel claim elements that largely correspond to those novel elements of claim 1, and are, therefore, also novel and patentable over the combination of *Muller* and *Bernstein* under 35 U.S.C. § 103(a) at least for the same reasons that claim 1 is novel and patentable over this combination. Claims 16-19 and 21-23 depend from claims 15 and 20, respectively, and are, therefore, also novel and patentable at least for being dependent upon allowable base claims 15 and 20.


In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: September 28, 2005

By:   
Cathy C. Ding  
Reg. No. 52,820